

**WHAT IS CLAIMED IS:**

- 1 1. A fuel supply system for a vehicle, the fuel supply system  
2 comprising:  
3 a fuel tank;  
4 a pump unit which is installed on a top of the fuel tank,  
5 the pump unit sucking fuel from the fuel tank and delivering  
6 the fuel to an engine;  
7 a fuel level detection device disposed in the fuel tank, the  
8 fuel level detection device comprising  
9 a float which floats on the fuel in the fuel tank, and  
10 a sensor member which is disposed between an  
11 inside bottom of the fuel tank and the pump unit, the sensor  
12 member detecting a displacement of the float; and  
13 a pressing member which is disposed between the pump  
14 unit and the sensor member, the pressing member pressing  
15 against the sensor member, the sensor member being pressed  
16 against the inside bottom of the fuel tank.
- 1 2. The fuel supply system as claimed in claim 1, wherein the  
2 pump unit comprises a fuel pump which sucks fuel from the  
3 fuel tank and delivers the sucked fuel, and a chamber which is  
4 disposed inside the fuel tank, the chamber being cylindrical  
5 and having a closed bottom to maintain fuel around an intake  
6 opening of the fuel pump.
- 1 3. The fuel supply system as claimed in claim 1, wherein the  
2 pressing member is connected to the sensor member and a  
3 bottom of the chamber.
- 1 4. The fuel supply system as claimed in claim 3, wherein the  
2 sensor member is disposed under the chamber.

1 5. The fuel supply system as claimed in claim 4, wherein the  
2 pressing member comprises a coiled spring, one end of the  
3 coiled spring being connected to a bottom of the chamber and  
4 another end thereof being connected to the sensor member.

1 6. The fuel supply system as claimed in claim 5, wherein  
2 the chamber comprises a first attachment projection on the  
3 bottom thereof, one end of the coiled spring being connected  
4 to the first attachment projection.

1 7. The fuel supply system as claimed in claim 6, wherein  
2 the sensor member comprises a second attachment projection  
3 on a top thereof, the other end of the coiled spring being  
4 connected to the second attachment projection.

1 8. The fuel supply system as claimed in claim 1, wherein  
2 the pressing member is connected to the sensor member and a  
3 side of the chamber.

1 9. The fuel supply system as claimed in claim 8, wherein  
2 the sensor member is disposed outside an area which is  
3 directly under the chamber.

1 10. The fuel supply system as claimed in claim 8, wherein  
2 the pressing member comprises a helical torsion spring, one  
3 end of the helical torsion spring being connected to a side of  
4 the chamber and another end thereof being connected to the  
5 sensor member.

1 11. The fuel supply system as claimed in claim 1, wherein the  
2 pressing member comprises a spring, one end of the spring  
3 being connected to the chamber and another end of the spring  
4 being connected to the sensor member.

1 12. The fuel supply system as claimed in claim 1, wherein the  
2 pressing member is disposed between the chamber and the  
3 sensor member.

1 13. The fuel supply system as claimed in claim 1, wherein  
2 the sensor member comprises an arm, one end of the arm  
3 being swingably connected to the sensor member and the other  
4 end of the arm being connected to the float.

1 14. A fuel supply system for a vehicle which comprises an  
2 engine, the fuel supply system comprising:  
3 a fuel tank;  
4 pump means for sucking fuel from the fuel tank and  
5 delivering the fuel to the engine, the pump means comprising  
6 containing means for maintaining an amount of fuel inside the  
7 pump means, the containing means being disposed inside the  
8 fuel tank;  
9 a float which floats on the surface of fuel in the fuel tank,  
10 the float having an upward or downward displacement which  
11 corresponds to a respective rise or fall in the surface of the  
12 fuel;  
13 sensor means for detecting the displacement of the float,  
14 the sensor means being disposed on a bottom of the fuel tank;  
15 and

16        pressing means for pressing the sensor member against  
17        the bottom of the fuel tank with elasticity, the pressing means  
18        extending from the containing means.

1        15.    A fuel supply system for a vehicle comprising an engine  
2        and a fuel tank, the fuel supply system comprising:  
3            a pump unit which is disposed on a top of the fuel tank,  
4        the pump unit comprising a chamber suspended inside the fuel  
5        tank;  
6            a sensor member which is disposed on an inside bottom of  
7        the fuel tank;  
8            a float which has a displacement corresponding to a  
9        change in a level of the surface of the fuel, the displacement  
10       being detected by the sensor member; and  
11        elastic pressing means for pressing against the sensor  
12        member with elasticity, the elastic pressing means being  
13        disposed between a top of the sensor member and the chamber.